# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/757,297 | 01/14/2004 | Jon Barry | 2003-0087 | 4464 |

27998          7590          06/19/2009
AT&T LEGAL DEPARTMENT - Koba
ATTN: PATENT DOCKETING
ROOM 2A-207
ONE AT&T WAY
BEDMINSTER, NJ 07921

| EXAMINER |
|---|
| GOLD, AVI M |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2457 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 06/19/2009 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>31 March 2009</u>.

2a)☒ This action is **FINAL**.          2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1,2,4-9 and 16-21</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,2,4-9 and 16-21</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>31 March 2009</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All   b)☐ Some * c)☐ None of:

　　　　1.☐ Certified copies of the priority documents have been received.

　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

## DETAILED ACTION

This action is responsive to the amendment filed on March 31, 2009. Claims 1,

4, 5, 9, 16, and 21 were amended. Claims 3 and 10-15 were cancelled. Claims 1, 2, 4-

9, and 16-21 are pending.

### *Response to Amendment*

### *Claim Rejections - 35 USC § 103*

1.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.      Claims 1, 2, 4-9, and 16-21 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Schuster et al., U.S. Patent No. 6,363,053, in view of Weldon et al.,

U.S. Patent Application Publication No. 2003/0198235, in view of Nordenstam et al.,

U.S. patent No. 6,442,615, further in view of Sunder et al. U.S Patent Application

Publication No. 2005/0055371.


Schuster teaches the invention substantially as claimed including a method and

apparatus for testing conformance to server level agreements in networks (see

abstract).

As to claim 1, Shuster teaches a method of measuring the quality of service provided to a remote-access user of a virtual private network, said virtual private network comprising a plurality of private network locations interconnected through a public data network, with the remote-access user including a VPN client device directly connected to said public data network, the method comprising the steps of:

a) providing measurement software at a VPN client location (col. 11, lines 45-54, VPN Quality of Service monitoring administered);

b) collecting, at the VPN client location, VPN performance information, the VPN performance information including at least the date and time of each VPN connection attempt, the identity of the VPN server to which the VPN client is attempting to connect, any connection failure code, and disconnection reason code (col. 12, lines 26-34, conformance testing method, col. 13, lines 17-29).

e) analyzing the stored VPN performance information (col. 12, lines 26-34, comparison of collected QoS characteristics to QoS characteristics in the SLA); and

f) generating a report measuring the quality of service as defined by the analysis of the stored service information (col. 12, lines 32-37, a report generated indicating the level of conformance to the SLA).

Schuster does not explicitly teach c) periodically uploading the collected VPN performance information to a centralized server connected between the VPN and said public data network and d) filtering, normalizing and storing the uploaded VPN performance information at the centralized server.

However, Weldon teaches collection of service level agreement statistics in communication networks and especially VPNs (see abstract). Weldon teaches the use of aggregating probe data on a month by month basis and uploading it to a server (paragraph 50).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Schuster in view of Weldon to upload the collected VPN performance information to a centralized server connected between the VPN and said public data network and filtering, normalizing and storing the uploaded VPN performance information at the centralized server. One would be motivated to do so because it allows for convenient review by customers of the VPN (paragraph 50).

Schuster also does not explicitly teach the collecting VPN performance information for each session attempt by the user.

However, Nordenstam teaches a traffic data evaluating apparatus for a network using dynamic routing (see abstract). Nordenstam teaches the use of data collection for every attempt to establish a connection (col. 8, lines 21-37).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Schuster in view of Nordenstam to collect the VPN performance information for each session attempt by the user. One would be motivated to do so because it allows for more accurate measurements for quality of service.

Schuster further does not explicitly teach collecting the VPN performance information including the identity of the VPN server to which the VPN client is attempting to connect, any connection failure code, and disconnection reason code.

However, Sunder teaches a method and system to manage connection of a connection application to one of the plurality of network connection points (see abstract). Sunder teaches the use of collecting the identity of the VPN server, any error codes, and disconnection reason (table 1, page 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Schuster in view of Sunder to collect the VPN performance information including the identity of the VPN server to which the VPN client is attempting to connect, any connection failure code, and disconnection reason code. One would be motivated to do so because it allows for more detailed measurements.


Regarding claim 2, Weldon teaches the method as defined in claim 1 wherein the method further comprises the step of performing any required VPN service maintenance actions to correct communication problems included in the generated report (fig. 6, paragraphs 64, 65).


Regarding claim 4, Weldon teaches the method as defined in claim 1 wherein in step b) comprises the collection of additional information related to VPN accessibility, VPN sustainability and VPN availability for each session attempt (paragraph 36).


Regarding claim 5, Schuster teaches the method as defined in claim 1 wherein the method is utilized for a plurality of separate remote-access VPN client devices, the steps of analyzing and generating then based on data collected for each session

attempt from the plurality of separate remote-access VPN client devices (col. 11, lines 45-54).

Regarding claim 6, Schuster teaches the method as defined in claim 5 wherein at least one remote-access VPN client device comprises a persistent location VPN client device (col. 11, lines 45-58).

Regarding claim 7, Schuster teaches the method as defined in claim 5 wherein at least one remote-access VPN client device comprises a transient location VPN client device (col. 11, lines 45-58).

Regarding claim 8, Schuster teaches the method as defined in claim 5 wherein step f) includes the generation of an aggregate report based on the performance of the plurality of separate remote-access VPN client devices (col. 12, lines 26-37).

Regarding claim 9, Schuster and Weldon teach the method as defined in claim 1 wherein the collecting of step b) further comprises collecting information including: link type, session duration, IP port identity, type of VPN protocol, type of VPN encryption, identity of network nodes traversed between the VPN client and VPN server for each session attempt (Schuster, col. 12, 13, Weldon, paragraphs 36-50).

Regarding claim 18, Schuster teaches a VPN centralized network server as defined in claim 16 wherein the server is capable of receiving connect/disconnect information from a plurality of separately located remote-access VPN client devices (col. 13, lines 15-29).

Claims 13, 16, 17, and 19-21 do not teach or define any new limitations above claims 1, 3, 4, 6-9 and therefore are rejected for similar reasons.

### Claim Objections

3.      Claim 1 is objected to because of the following informalities:  The newly added portion that includes "at least the data and time of each VPN..." appears to mean date and time, not data and time.  Appropriate correction is required.

### Response to Arguments

4.      Applicant's arguments with respect to claims 1, 2, 4-9, and 16-21 have been considered but are moot in view of the new ground(s) of rejection.

### Conclusion

5.      Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.  Accordingly, **THIS ACTION IS MADE FINAL**.  See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

6.      The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

U.S. Pat. Pub. No. 2005/0088977 to Roch et al., because it discloses a dynamic

VPN tunnel quality of service treatment.

U.S. Pat. Pub. No. 2005/0193103 to Drabik, because it discloses a method and

apparatus for automatic configuration and management of a virtual private network.


Any inquiry concerning this communication or earlier communications from the

examiner should be directed to AVI GOLD whose telephone number is (571)272-4002.

The examiner can normally be reached on M-F 8:00-5:30 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


/A. G./
Examiner, Art Unit 2457

/ARIO ETIENNE/
Supervisory Patent Examiner, Art Unit 2457